

**REMARKS**

This Amendment After Final is organized under appropriate subheadings for the convenience of the Examiner.

**Amendment to Specification**

The specification has been amended to conform the title to the pending claimed subject matter and to clarify the government support for the application. No new matter has been added. Entry is requested.

**Amendments to Claims 28, 56, 132, 134-136 and 148 and New Claims 149-157**

Claims 28, 56, 132, 134-136 and 148 have been amended and new Claims 149-157 have been added. Claim 148 was amended to correct a typographical error in the identification of the claim from which it depends. Support for amendments to the claims and new Claims 149-157 can be found in the application as originally filed. For example, page 11, line 27 through page 12, line 3; page 13, lines 15-18; page 16, lines 1-3; page 17, lines 16-23; the Sequence Listing of the application provides the sequences; and SEQ ID NOs. for the sequences depicted in Figures 2C, 6A, 14A and 19 and SEQ ID NO: 38, thereby providing support for amendments to independent Claims 1 and 56. New Claims 149-157 depend, directly or indirectly, from amended independent Claims 28 and 56, and specify that the Sir2 protein is a Sir2 $\alpha$  protein (Claim 149) and particular amino acid sequences of Sir2 $\alpha$  and fragments of Sir2 (Claims 150-157), which includes fragments in a Markush group of amended independent Claims 28 and 56. Support for new Claims 149-157 can be found in the Sequence Listing and on page 43, lines 22-25 of the specification. Entry of the amendment to the claims and new Claims 149-157 is respectfully requested.

**Amendment to Abstract**

The abstract has been amended to conform to the pending claimed subject matter. No new matter has been added. Entry is requested.

**Rejection of Claims 28-31, 56, 60-62, 64, 131-136 and 139-148 Under 35 U.S.C. § 112,****Second Paragraph**

Claims 28-31, 56, 60-62, 64, 131-136 and 139-148 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as the invention. The Examiner stated that use of reference to Figures in Claim 28 is not within an “exceptional circumstance” and that the term “includes” in Claims 132 and 134-136 makes it impossible to determine the metes and bounds of the claimed invention.

Applicants have amended Claims 28, 132 and 134-136. Therefore, Claims 28-31, 56, 60-62, 64, 131-136 and 139-148, as amended, and new Claims 149-157, which depend, directly or indirectly from amended, independent Claims 28 and 56, meet the requirements of 35 U.S.C. § 112, second paragraph.

In addition, the Examiner stated that Claim 28 and Claims 29-31, 131, 132, 135, 136, 139 and 141-144, which depend, directly or indirectly, from Claim 28, are incomplete because the essential step of measuring NAD-dependent deacetylation activity of the Sir2 protein has been omitted.

The step of measuring NAD-dependent deacetylation activity of the Sir2 protein is a step in the method of independent Claim 28 (see lines 2 and 3 of independent Claim 28). Claims 29-31, 131, 132, 135, 136, 139 and 141-144 depend, directly or indirectly, from Claim 28, and, thus, include the step of measuring NAD-dependent deacetylation activity of the Sir2 protein and meet the requirements of 35 U.S.C. § 112, second paragraph.

**Information Disclosure Statement**

On March 14, 2011, Applicants electronically filed four (4) Supplemental Information Disclosure Statements (SIDSs), all of which appear in PAIR. The Examiner appears to have considered one of the SIDS. Applicants respectfully request that the Examiner consider the other three (3) SIDSs filed on March 14, 2011.

**SUMMARY AND CONCLUSION**

Applicants' claimed invention, as amended, meets the requirements of 35 U.S.C. § 112, second paragraph. In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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